DRAFT White Paper
Voluntary Certification of Consumer Cleaning Products Used at Institutional and Commercial Facilities

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Planning, Rule Development & Area Sources
South Coast Air Quality Management District

TABLE OF CONTENTS

Introduction……..1
Background……..2
AQMD Proposed Labeling Program Structure……....5
1. Participation…….5
2. Methodology……6
3. Label Type……...7
4. Categories……7
5. Criteria and Test Methodologies……8
i. VOC Content……...9
ii. Prohibited Components……...9
Issues……..……10
Recommendations…….....11
References……..12
Appendix A. DRAFT Clean Air Choices Cleaner Certification Protocol

Introduction

As part of the overall strategy to reduce Volatile Organic Compound (VOC) emissions from consumer products used in commercial and institutional cleaning, the South Coast Air Quality Management District (AQMD) is evaluating a VOC labeling/certification program. Control Measure CTS-03, Consumer Product Labeling and Emission Reductions from Use of Consumer Products at Institutional and Commercial Facilities included in the Draft 2007 Air Quality Management Plan, directs staff to establish a label or certification, based on criteria to distinguish super compliant low- and nearly zero-VOC consumer cleaning products used by institutional and commercial establishments.

This white paper provides background and general information on existing labeling and certification programs, and assesses their respective strengths and limitations. It finally includes a staff recommendation for the Governing Board's consideration that would allow the implementation of the labeling/certification direction of the Draft 2007 AQMP in the most expeditious manner.

Consumer product labeling is designed to provide an independent, reliable guide to easily identify some preferable aspect of a product to a consumer. The International Organization for Standardization (ISO) describes the goal of environmental labeling as:

> "…communication of verifiable and accurate information, that is not misleading, on environmental aspects of products and services, to encourage the demand for and supply of those products and services that cause less stress on the environment".

Environmental labels span a wide range of product qualities including energy consumption, waste management, environmental impacts and others. It is important that AQMD's program accurately convey the positive aspects of the product and also the limits of the attributes considered. The AQMD's proposed program will not only consider air pollution, but will attempt to consider other factors that contribute to improving the environment and protecting human health.

Background

Growing concern for environmental protection by consumers led to commercial enterprises making "green" claims as a marketing strategy. Often, the claims were unsupported and deliberately confusing, and lacked any empirical data to support the claims. Lack of credibility and impartiality led to the formation of private and public organizations seeking to influence consumer decisions and encourage the production and consumption of environmentally preferable goods as a market-based instrument intended to bring about environmental improvement.

Many of these organizations review environmental criteria such as air, water and waste impacts, energy consumption, recyclability, biodegradability, bioaccumulation, and safety and health implications like flammability, toxicity, carcinogenicity, mutagenicity, endocrine effects and sensitization. Some go further and attempt to review the "cradle-to-grave" life cycle considerations such as raw material extraction and manufacture. The criteria are typically determined by an independent private or governmental organization with assistance from key stakeholders.

Internationally, there are 22 major environmental labeling programs covering 42 countries. In the United States, there are several organizations that provide third-party environmental life cycle review. United States Environmental Protection Agency's (U.S. EPA) Design for the Environment (DfE) Formulator Program and Green Seal are the current leading organizations for life-cycle eco-labeling in the U.S.

The DfE review screens each ingredient for potential human health and environmental effects based on current information, predictive models and expert judgment. The DfE Formulator Program encourages and assists formulators in designing products with more positive environmental and health profiles than conventional products. Manufacturers share each product component to determine key health and environmental characteristics.

The Green Seal program is a non-profit organization following ISO 14020 and 14024 standards, U.S. EPA's criteria for third-party certifiers and the criteria established by the Global Ecolabelling Newtork (GEN). They have an open process with business, environmental and consumer group stakeholders. The environmental standards represent a full life cycle review and established test methods to determine compliance with those criteria. Additionally, they include product-specific performance requirements to demonstrate that the approved product performs as well as nationally recognized products in its category. Green Seal currently has 35 individual standards spanning tissue paper to alternative fuel vehicles. Two standards are most representative of the categories of interest in AQMD's control measure. Green Seal Environmental Standard for General-Purpose, Bathroom, Glass, and Carpet Cleaners Used for Industrial and Institutional Purposes (GS-37) was funded by the U.S. Army's Aberdeen Proving Ground and applies to industrial and institutional janitorial cleaners. Green Seal Environmental Standard for Floor-Care Products: Finishes and Compatible Strippers Used for Industrial and Institutional Purposes (GS-40) applies to floor care products such as polishes and floor wax strippers.

As part of California Air Resource Board's (CARB) 2003 State and Federal Strategy for the California State Implementation Plan, the state proposed establishing a clean air labeling program. In 2004, a Preliminary Draft Staff Assessment was developed which made the following recommendations:

A. Require mandatory VOC content labeling and allow "ultra-low emitting" and "zero emitting" products to use a CARB approved logo on the product label.

B. Develop an action plan for public education, outreach and marketing efforts. A key component of a successful program will be establishing partnerships with industry associations and environmental or health organizations to develop and distribute public education and outreach materials.
C. Evaluate the feasibility of establishing a multi-media environmental labeling program in cooperation with other state agencies.

The staff recommendations ended with this warning, "In 1991, a multi-media Environmental Labeling Initiative was proposed in cooperation with all Cal/EPA Boards and Departments (BDOs[1]) but not pursued. Staff understands that the participants found it difficult to reconcile adverse effects on multiple media. Participants also were not supportive of the use of a broad, single one-size-fits-all environmental label. Past experience with this inter-agency effort indicated that existing technological expertise within Cal/EPA would not support a multi-media labeling program. It was also determined that the development and implementation of a multi-media labeling program would require substantial resources, possibly including contracting out and a fee-based application process. At this time, staff recommends that all Cal/EPA BDOs be surveyed regarding a cooperative effort to evaluate the feasibility of establishing a multi-media environmental labeling program and to determine how each Cal/EPA BDO could support such a program." As of yet there has been no update.

There are numerous narrower focus "hybrid" eco-labeling programs that concentrate on a single sector or a single environmental issue (e.g. air quality). U.S. EPA's Energy Star program is a well known example of a narrow focus eco-labeling program as it focuses primarily on energy conservation.

The AQMD currently has labeling and certification programs, including Clean Air Choices for low emission vehicles and Clean Air Solvent Certification for ultra low VOC cleaning solvents. Additionally, the AQMD has many listings of "super compliant" or very low VOC content products including Super-Compliant Architectural/Industrial Coatings, alternative fuel street sweepers, boilers, chrome plating fume suppressants, internal combustion engines, water-based cleaners, air-tight or airless solvent degreasers and low VOC cleaning aerosol spray cans.

The Clean Air Choices program gives colorful, electrostatic labels to automotive dealerships to post on all new vehicles that meet CARB's criteria for designated lower-emitting vehicles. The program provides the labels and maintains a webpage with links to over 50 dealerships participating and several model years of automobiles that qualify. This list is periodically updated as new models are certified by CARB.

Clean Air Solvent Certification allows manufacturers of industrial and commercial cleaning solvents to apply for certification if they meet VOC and air toxics requirements. Clean Air Solvent (CAS) is defined in Rule 102 – Definition of Terms. The criteria for acquiring certification are:

[1] California Boards, Departments and Offices

A. VOC content of 25 g/l or less of material as applied[2];
B. VOC composite partial vapor pressure less than 5 mm Hg[3];
C. Less reactive than toluene[4];
D. Contains no Hazardous Air Pollutants (HAPs)[5], Ozone Depleting Compounds (ODCs)[6] or Global Warming Compounds (GWCs)[7];
E. Has been certified by the AQMD using test methods and procedures approved by the District[8].

The program maintains a website with an overview of the program, a list of certified products and companies and the protocol for Clean Air Solvent Certification. The protocol includes the information and fees required for certification, the laboratory procedures for determining certifiability and compliance requirements. Currently there are 73 companies that have over 140 products certified as a CAS. While the CAS program gives companies a certificate for each product and allows them to advertise their certification in literature and on their label, they are not authorized to use any type of AQMD logo.

Although difficult to quantify, it is anticipated that emission reductions could be realized from these programs. While measuring success may be difficult, it is reasonable to expect that such programs positively influence consumer behavior in selecting ultra-low VOC products and foster the marketing of ultra low polluting technologies. Global Ecolabelling Network (GEN) notes, "Given the difficulty in separating out the impact of ecolabelling from other economic, environmental and social policies, few programs have tried to claim direct environmental benefits from ecolabelling. Nevertheless, efforts so far to measure the effectiveness of ecolabelling programs have generally focused on such indicators as the improvement in environmental quality of certified products, industry participation, and consumer recognition."

Despite the difficulties in establishing criteria and measuring success, environmental purchasing is becoming widespread, especially with regard to cleaning products used by institutional and commercial establishments for janitorial cleaning. In 1998, Presidential Executive Order 13101 – Greening the Government Through Waste Prevention, Recycling, and Federal Acquisition directed federal agencies to identify and purchase environmentally preferable products and services. Numerous federal, state and local

[2] Material VOC content is the weight of VOC per volume of material as diluted by water and/or exempt solvents. See the formula in section (b)(17) in Rule 1171.
[3] Calculated using the formula in section (b)(43) in Rule 1171.
[4] From the Maximum Incremental Reactivity List found in Appendix VIII of the CARB's *"California Exhaust Emission Standards and Test Procedures for 1988 and Subsequent Model Passenger Cars, Light-Duty Trucks and Medium-Duty Vehicles"* as amended on September 22, 1993.
[5] From Section 112 (b)(1) of the 1990 Clean Air Act Amendment
[6] Source: Pt. 82. Subpt. A, 40CFR Ch 1 (7/1/96 Edition)
[7] Source: United Nations Programme (UNEP), February 1995, Scientific Assessment of Ozone Depletion: 1994, Chapter 13, "Ozone Depleting Potentials, Global Warming Potentials and Future Chlorine/Bromine Loading."
[8] SCAQMD Method 313 [Determination of Presence of Volatile Organic Compounds (VOC) in a Headspace and SCAQMD Method 308 (Quantitation of Compounds by Gas Chromatography).

institutional, industrial and commercial facilities developed programs to identify and purchase environmentally preferable products. Locally, the cities of Los Angeles, including the Los Angeles Unified School District and Santa Monica, as well as many non-profit and private companies have programs to use environmentally preferable cleaning products. The AQMD itself will begin an "Environmentally Friendly Cleaners" program beginning in March 2007.

Responding to the interest level of their clientele, most large and many medium and smaller-sized janitorial service providers now also have instituted "green" programs. These programs usually, but not necessarily always, use the Green Seal standards. Most janitorial service providers that do have a "green" program focus mainly on the use of more environmentally preferred cleaning chemicals but a few providers use a more holistic approach and include specialized equipment, employee training and waste stream management.

AQMD Proposed Labeling Program Structure

The structure of AQMD's efforts to provide recognition to super compliant low- and nearly zero-VOC consumer janitorial cleaning products used by institutional and commercial establishments is determined by the scope and breadth envisioned in the control measure. Because the goal is to provide recognition for products that help to lower VOC emissions, it is clear that the AQMD labeling or certification will be a "positive" program. "Neutral" or "negative" labels are for information comparison or hazard warnings and would not be appropriate. However, further considerations will be made in regards to participation, methodology, label, and implementation by working with all key stakeholders.

Participation

Existing labeling or certification programs are voluntary or mandatory. Mandatory programs require that products be submitted for evaluation and have some type of designation showing its performance during the evaluation. Often mandatory programs are one element of a regulatory approach and usually identify a negative product characteristic. On the other hand, voluntary programs submit an application and follow the stipulated criteria to determine qualification. If the product fails to meet the specified criteria, the only penalty is the failure to receive an award. However, a "voluntary" program could become "mandatory" if another regulation requires the use products that have been certified in a "voluntary" program.

It is envisioned that the AQMD program will be voluntary for product manufacturers. An application will be submitted along with a sample of the product and relevant documentation including a Material Safety Data Sheet (MSDS) and a Technical Data Sheet (TDS) detailing the volatile ingredients as defined in AQMD Rule 102 – Definitions. If the product met all of the applicable criteria, it would receive approval. Products that failed to meet one or more aspects of the criteria would not be penalized nor

would they be required to disclose the reason for failure. A manufacturer would be able to claim confidentiality for their specific formulations forwarded to the AQMD.

Methodology

According to the U.S. EPA's "Environmental Labeling Issues, Policies and Practices Worldwide", a program's evaluation method is one of its most important features. It reflects the scientific basis, data sources and decision making from which award decisions are made.

Most robust or holistic environmental labeling programs are based on life-cycle assessments. That type of assessment requires detailed technical expertise that can only come from an open, public peer review process with representation from key stakeholders. The AQMD currently does not have the capability to develop and evaluate such comprehensive life-cycle assessments in-house. Additionally, criteria requiring test methods outside the realm of air quality, such as aquatic toxicity or biodegradability, would need to be contracted out.

However, the SCAQMD is well suited to manage a program focused on air quality impacts. The agency has the necessary expertise to develop criteria that would address the air quality needs of the South Coast Air Basin. The laboratory can conduct required testing to verify compliance with criteria standards. The CAS program is an example of an SCAQMD voluntary, air quality-focused award program.

It should be reiterated that an air quality focused program is not as complete as a life-cycle assessment program. Fewer impacts are analyzed and those unanalyzed impacts may hide attributes that make an AQMD award winning product in fact have an overall negative environmental impact. A certification program, like CAS, has less chance of misleading or being misunderstood by a potential user who may believe a "green" labeled AQMD approved product is "green" in all attributes. A product labeling program would have to be very careful to convey the appropriate message to the user so as to not confuse or mislead the user. The Federal Trade Commission prohibits false or misleading environmental claims included in labeling and other forms of marketing. A "green" or "eco-friendly" label on products evaluated only for their air quality impacts only could certainly be misleading. "Low Air Polluting" or "Clean Air" is a much more correct message for an air quality focused program.

If the intention is to be more holistic, then a partnership with a leading environmental labeling organization such as Green Seal or U.S. EPA's DfE would be in order. It may be possible to adopt Green Seal's award criteria, with modifications for air quality issues. Many of the organizations cooperate internationally but it is not known if they would have an interest in partnering. Finally, the program could limit cleaning products eligible for AQMD awards to only those products that are certified by a third-party life-cycle assessment organization like Green Seal or U.S. EPA's DfE.

Label Type

The decision between a certification program and a labeling program is made by weighing liability versus impact. Certification is a confirmation that a product has met all applicable criteria. While certainly used as a marketing tool, it is used primarily as a reference to the favorable qualities of the product. A purchaser would need to make a special effort to see or be made aware of the certification. The certificate could contain explicit limits on the environmental claims that could be made based on the certification process. On the other hand, the label is inclusive. The purchaser and every user will see the label on the product with no other context. Thus they will apply the image and catch phrase in determining what message is conveyed to them. The label has a more profound impact but less control in message content. It is critical that in a labeling program that the label and catch phrase send the appropriate message.

Categories

To determine the categories of cleaning products applicable to a labeling program, it is useful to define institutional and commercial establishments. Applicable facilities would include amusement parks, auditoriums, arenas, government agencies, hotels, office buildings, museums, schools, shopping centers, stores, warehouses and non-manufacturing area of industrial buildings. It would not include households, food preparation operations, medical facilities and manufacturing areas.

Typical products, and corresponding CARB definitions, used for janitorial cleaning operations conducted in applicable facilities and targeted in the control measure are the following:

- Glass Cleaner – A cleaning product designed primarily for cleaning surfaces made of glass. Glass cleaner does not include products designed solely for the purpose of cleaning optical materials used in eyeglasses, photographic equipment, scientific equipment and photocopying machines.
- Bathroom and Tile Cleaner – A product designed or labeled to clean tile or surfaces in bathrooms. Bathroom and Tile Cleaner does not include Toilet/Urinal Care Products
- Toilet/Urinal Care Product – Any product designed or labeled to clean and/or deodorize toilet bowls, toilet tanks, or urinals. Toilet bowls, toilet tanks, or urinals includes, but is not limited to, toilets or urinals connected to permanent plumbing in buildings and other structures, portable toilets or urinals placed at temporary or remote locations, and toilet and urinals in vehicles such as buses, recreational motor homes, boats, ships, and aircraft. Toilet/Urinal Care Product does not include Bathroom and Tile Cleaner or General Purpose Cleaner.
- General Purpose Degreaser – Any product labeled to remove or dissolve grease, grime, oil and other oil-based contaminants from a variety of substrates, including automotive or miscellaneous parts.
- Carpet and Upholstery Cleaner – A cleaning product designed for the purpose of eliminating dirt and stains on rugs, carpeting, and the interior of motor vehicles and/or furniture or objects upholstered or covered with fabrics such as wool,

cotton, nylon or other synthetic fabrics. Carpet and Upholstery Cleaner includes, but is not limited to, products that make fabric protectant claims.

- Metal Polish/Cleanser – Any product designed primarily to improve the appearance of finished metal, metallic, or metallized surfaces by physical or chemical action. To improve the appearance means to remove or reduce stains, impurities, or oxidation from surfaces or to make surfaces smooth and shiny. Metal Polish/Cleanser includes, but is not limited to, metal polishes used on brass, silver, chrome, copper, stainless steel and other ornamental metals.
- Floor Polish or Wax – A product designed or labeled to polish, wax, condition, protect, temporarily seal, or otherwise enhance floor surfaces by leaving a protective finish that is designed or labeled to be periodically replenished.
- Floor Wax Stripper – A product designed to remove natural or synthetic floor polishes or waxes through breakdown of the polish or wax polymers, or by dissolving or emulsifying the polish or wax.
- General Purpose Cleaner – A general purpose cleaning product labeled for use on a variety of hard surfaces, including small appliances. General Purpose Cleaner includes, but is not limited to, products designed or labeled for general floor cleaning, kitchen, countertop, or sink cleaning, and cleaners designed or labeled to be used on a variety of hard surfaces such as stovetops, cooktops, or microwaves.
- Air Freshener – Any product including but not limited to, sprays, wicks, powders, and crystals, designed for the purpose of masking odors, or freshening, cleaning, scenting, or deodorizing the air.

CARB has applicable VOC limits for the above mentioned categories (see Table 1 below). The VOC content limit is given in weight percent and exempts LVP solvents. Additionally, many of the categories have higher applicable limits for the same products that are packaged in aerosol form.

Table 1
CARB VOC Limit by Product Category

Product	VOC Limit (Percent VOC by Weight)
Glass Cleaner	4
Bathroom and Tile Cleaner	1
Toilet/Urinal Care Product	3
General Purpose Degreaser	4
Carpet and Upholstery Cleaner[9]	3
Metal Polish/Cleanser	30
Floor Polish or Wax	1
Floor Wax Stripper	3
General Purpose Cleaner	4
Air Freshener	18

[9] VOC content limit is 0.1% by weight for dilutable Carpet and Upholstery Cleaners

Criteria and Test Methodologies

The aim and goals of a certification or eco-labeling program are contained within the criteria selected to win approval. A "clean air" program would have fewer criteria more specifically targeting air pollution issues while a life cycle assessment program would have a broad range of criteria that would need to be satisfied before an award was granted. Regardless of whether the program is narrow or a wider focus, the criteria must distinguish leadership within a product category. Additionally, the criteria must be credible, relevant and verifiable. Finally, the criteria must be attainable so that some number of products will be able to be put forward as preferred.

Closely linked to the criteria are the analytical methodologies used to verify compliance. Methodologies can include literature review, independent testing, testing conducted by the programs themselves or approval by other programs. Besides research and development costs, laboratory testing can be the dominant expense for companies trying to win an award. Companies are likely to independently test their potential products prior to submission for certification to determine the likelihood of success. A difficult and costly set of criteria could deter companies from seeking an award.

Below are listed recommended criteria and associated analytical methodologies for a narrow focus air quality certification program. Based on experience with the CAS program, the cost of testing is expected to be between $700 and $1,000.

VOC Content

VOC content of 25 g/l or less of material as applied measured using AQMD Method 313, Determination of Volatile Organic Compounds (VOC) by Gas Chromatography/Mass Spectrometry (GC/MS).

Prohibited Components

Less than 0.1 percent by weight of any of the following compounds as measured by AQMD Method 313 (GC/MS):

- Toxic Air Contaminants (TAC) as listed in AB 1807 Toxic Air Contaminant Program
- Hazardous Air Pollutants (HAP) as listed in Section 112 (b) of the Federal Clean Air Act
- Ozone Depleting Compounds (ODC) as listed in 40 CFR Part 82
- Global Warming Compounds (GWC) including CF_4 (Perfluoromethane), HFCs (hydrofluorocarbons), HFEs (hydrofluoroethers), PFCs (perfluorocarbons), SF_6 (sulfur hexafluoride) and N_2O (nitrous oxide)
- Heavy Metals including arsenic, lead, cadmium, cobalt, copper, chromium, mercury, nickel and zinc

- Great Waters Pollutants of Concern as listed in U.S. EPA's *Deposition of Air Pollutants to the Great Waters*
- Carcinogens as listed by the International Agency for Research on Cancer (IARC), National Toxicology Program, U.S. EPA or the Occupational Health and Safety Administration
- Carcinogens or Reproductive Toxins as listed in the State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

A more robust life cycle assessment may include prohibitions or restrictions on products that have unacceptable flammability, bioaccumulation, fish toxicity, endocrine disruptors, pH or other chemicals of concern such as alkylphenol ethoxylates, dibutyl pthalates, inorganic phosphates and optical brighteners. There could even be consideration of non-environmental criteria such as performance, packaging, training or animal testing. Many of these elements would be covered if the AQMD were to partner with a life cycle assessment program such as Green Seal or U.S. EPA's DfE programs.

Issues

Several key issues must be resolved to establish a successful program. While the differences between a "labeling" program and a "certification" program may appear subtle, at stake is the level of responsibility and liability associated with each program. The visibility of an AQMD approved logo has a more profound impact to a purchaser than certification. However, a poorly performing product or some unforeseen environmental consequence from the use of a labeled product would be directly associated with the AQMD.

VOC content measurement conventions may also differ among agencies. At the state, federal and international levels, low vapor pressure (LVP) solvents with a vapor pressure less than 0.1 mm Hg are not considered as VOC when determining VOC content for consumer products. In contrast, the AQMD test method may consider these LVP solvents to contribute to the VOC content thus eliminating the eligibility of a fair number of products. Finally, the lack of detailed data on the ingredients contained in consumer products creates a level of uncertainty. Often consumer products only list active ingredients or classify the ingredients as proprietary. Many consumer products legally can declare only that they contain no hazardous ingredients while not sharing many chemical components that would be necessary to fully determine the environmental impact of the product, based on AQMD test methods.

Recommendations

Establish a voluntary, air quality focused certification program for super compliant commercial and institutional janitorial cleaning consumer products. The categories of products targeted for certification would include glass cleaners, bathroom and tile cleaners, toilet and urinal care products, general purpose degreasers, carpet and

upholstery cleaners, metal polish/cleansers, floor polish or wax, floor wax strippers, general purpose cleaners and air fresheners. Eligible products would have a VOC content less than or equal to 25 g/l. In addition, eligible products would have less than 0.1 percent by weight of prohibited compounds including TACs, HAPs, ODCs, GWCs, carcinogens and reproductive toxins, heavy metals and U.S. EPA's Great Waters Pollutants of Concern.

A more robust "green" labeling program allowing the use of an AQMD approved program logo would likely necessitate partnership with a life cycle assessment program such as Green Seal or U.S. EPA's DfE programs. "Green" labeling implies a broader review of potential environmental impacts besides just air quality such as worker safety, bioaccumulation and aquatic impacts. Many "green" label programs include non-environmental criteria such as performance, packaging and training requirements. Such an endeavor would require analytical and technical expertise outside of AQMD's current capabilities. Staff may consider this as a subsequent program to the initial certification program

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APPENDIX A

DRAFT
Clean Air Choices
Cleaner Certification Protocol

DRAFT
Clean Air Choices
Cleaner Certification Protocol
Planning, Rule Development & Area Sources

December 2006

I. OVERVIEW

This protocol contains information on how an applicant may obtain a Clean Air Choices Cleaner Certificate. Primarily, the Clean Air Choices Cleaner is considered a super compliant consumer product janitorial cleaner used at commercial and institutional facilities. Super compliant means that the product has a Volatile Organic Compound (VOC) content of 25 g/l or less or 1% by weight or less.

The South Coast Air Quality Management District (AQMD) will notify applicants of the finding of laboratory analysis within 90 days of the receipt of all requested information. A certificate will be issued within 30 days of such notification if the product is approved as a Clean Air Choices Cleaner by the AQMD.

Information Required

Name of the product (including chemical name, if any);
Applicable product category or intended use;
Name, address, telephone, fax number and e-mail address of the applicant (and contact person, if different);
Formulation data sheet for the product, if available (will be treated as confidential if requested);
Material data sheet for the product;
Sealed, unopened 1 quart sample of product;
Complete user instructions on how the product is intended to be used, including dilution and/or mixing ratios and any other relevant information.

Fee Required

At the time of filing for a Clean Air Choices Cleaner Certificate, the applicant must submit with the sample product a fee for each product to be tested. This fee includes the GC/MS analysis for 5 or fewer compounds, one (1) hour time and material, and the certificate.

Adjustments may be made to the submitted fee with the applicant receiving a refund or being billed for additional analysis needed of the sample. A refund will be made if the actual testing fee is less than the submitted testing fee; or additional billing will be made if the actual testing fee is greater than the submitted testing fee. In addition, if the

candidate product does not qualify for the certificate, appropriate adjustments will be made and monies refunded to the applicant, where warranted. This refund will include the certificate fee and any unused portion of the analysis fee.

These fees are taken from AQMD Rule 304.1 and will be based on the current version of the rule at the time of submittal.

Submittal Address

Clean Air Choices
Cleaner Certification
Attn: Mike Morris
Planning, Rule Development & Area Sources
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765-4182

II. LABORATORY ANALYSIS

The certifiability of the product will be determined by testing the unopened submitted product sample. Analysis will be performed by the AQMD Laboratory using the most recent version of SCAQMD Method 313, Determination of Volatile Compounds (VOC) by Gas Chromatography/Mass Spectrometry (GC/MS). The detection limit for the individual components of this method is 0.01 percent. However, only compounds that are 0.1 percent or greater will be considered in the identification and quantitation of compounds.

The certification process will entail the following steps by evaluating the GC/MS data obtained by using Method 313:

1. Evaluate the GC/MS data of the sample for the presence of prohibited compounds in quantities of 0.1 percent or greater. Product samples must contain none of the following compounds listed below in quantities of 0.1% or greater in order to be eligible for a Clean Air Choices Cleaner Certificate.
    - Toxic Air Contaminants (TAC) as listed in AB 1807 Toxic Air Contaminant Program
    - Hazardous Air Pollutants (HAP) as listed in Section 112 (b) of the Federal Clean Air Act
    - Ozone Depleting Compounds (ODC) as listed in 40 CFR Part 82
    - Global Warming Compounds (GWC) including CF_4 (Perfluoromethane), HFCs (hydrofluorocarbons), HFEs (hydrofluoroethers), PFCs (perfluorocarbons), SF_6 (sulfur hexafluoride) and N_2O (nitrous oxide)
    - Heavy Metals including arsenic, lead, cadmium, cobalt, copper, chromium, mercury, nickel and zinc
    - Great Waters Pollutants of Concern as listed in U.S. EPA's *Deposition of Air Pollutants to the Great Waters*

- Carcinogens as listed by the International Agency for Research on Cancer (IARC), National Toxicology Program, U.S. EPA, or the Occupational Health and Safety Administration
- Carcinogens or Reproductive Toxins as listed the State of California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

2. If prohibited compounds are not present, then each detected VOC component will be quantified to calculate the total VOC in g/l at the recommended use dilution. If the VOC content is 25 g/l or less, a certificate will be awarded. If the VOC content is greater than 25 g/l then the VOC content will be tested using CARB Method 310. If the VOC content is greater than one percent by weight, no certificate will be awarded.

If the above procedures are successfully completed, a Clean Air Choices Certificate will be awarded.

III. COMPLIANCE AND FIELD AUDITS

A Clean Air Choices Cleaner Certificate shall be valid for five years from the date of issuance and may be renewed upon recertification. The recertification fee shall be according to the fees specified in the most current Rule 304.1 fees. Any person utilizing a Clean Air Choices Cleaner shall comply with the conditions of use stated on the certificate. If a Clean Air Choices Cleaner is reformulated, the Clean Air Choices Certificate will be considered invalid and the new product must be reevaluated to obtain a new certificate.

The Executive Officer may conduct field audits to determine continuous compliance by sampling an unopened concentrated product in the field. If the results of the laboratory analysis show that the product no longer meets certification criteria, the Executive Officer may revoke the Clean Air Choices Certificate.